

then veratrum viride. Opium is indispensable for severe pain, and bromide of potassium to control excessive reflex action. When the stage of arterial and functional excitement is passed, remedies for the absorption of effusion and exudation are indicated. For the former, purgatives and diuretics are thought sufficient; for the more solid exudations, the salts of ammonia, in considerable doses, are recommended.

For the chronic inflammatory troubles (scleroses), the remedies are: hot douches to the spine morning and night, cutaneous faradization half an hour daily, the rubbing and wet pack, Granville's percuteur. Violent rubbing and kneading, says the author, do mischief. Galvanism is recommended by Dr. B. with the descending current. The balance of authority, however, is now in favor of the polar method of electrical application. The author is convinced that the current method of Onimus and Legros is correct, but also "confirms the high estimate" placed by Erb upon his (polar) method.

The internal remedies from which the best results, in scleroses, are obtained, are nitrate of silver and chloride of gold and silver. Many cases of chronic spinal disease are said to be due either to metallic poisoning or syphilis. Iodide of potassium and occasionally mercury are therefore often needed.

In the chronic nutritional disease, senile, etc., cod-liver oil, the phosphates, strychnia, quinine, and electricity must be used.—*Medical News*, December 16, 1882.

**ACTION AND USE OF CONVALLARIA.**—Dr. J. Troitzky, from experiments on frogs, dogs, and rabbits, concludes: (1) That convallaria stimulates the inhibitory centres in the heart, paralyzes the motor centres, and does not affect the vagus. (2) That it lowers the temperature (in large doses). (3) That it diminishes muscular reflex action.

Therapeutically, it is indicated in valvular diseases of the heart, except where the organ is fatty. On theoretical grounds, it is recommended as a vascular tonic to the nerve centres.—*Wratch*. 15, 1881, u. 18, 40, u. 41, 1882; *Deutsche Mediz.-Zeitung*, January 11, 1883.

Dr. William M. Polk reports a case of vagus neurosis remarkably relieved by convallaria. The patient was a young man of good history and habits, who was subject, periodically, to attacks of palpitation. The heart beat at the rate of 190 to 240 times per minute. The attacks, under digitalis treatment, lasted two or three days. There was no organic disease. Under ten minim doses of fluid extract of convallaria, the heart-action was very rapidly brought down and all bad symptoms dispelled.—*N. Y. Medical Record*, February 2, 1883.

Dr. Isaac Ott reports the results of experiments with convallaria upon rabbits and frogs. He concludes: (1) That convallaria increases arterial tension until very powerful doses have been taken.

- (2) That it at first increases then decreases the frequency of the heart-beat. (3) That the latter effect is not due to stimulation of the cardio-inhibitory centre, but to an effect upon the heart-muscle. (4) That the drug causes clonic spasms.

Dr. Ott's conclusions, practically, are in harmony with those of Troitzky, the latter designating as a local-inhibitory centre that which Dr. Ott refers to the cardiac muscle itself.—*Archives of Medicine*, February, 1883.

THE SLEEP-PRODUCING POWER OF OZONE.—Binz has reported additional experiments with ozone gas as a hypnotic. He made forty-three trials upon twelve persons. In six experiments the results were nil; in the remainder, more or less sleep was produced. The ozone was produced by two of Grove's cells. As it is irritating to the air-passages it was freely mixed with air. The sleep produced was unaccompanied by any disturbance of function. Binz states that ozone brought in contact with brain tissue acts upon it much as do certain narcotics. He recommends the use of ozone in asthma, as its inhalation is accompanied with greater ease in respiration.—*Berlin. klin. Woch.*, No. 43, 1882.

PARALDEHYDE AS A SUBSTITUTE FOR CHLORAL HYDRATE.—Dr. V. Cervello reports the results of his experience with paraldehyde. He claims that this has a hypnotic power equal to that of chloral hydrate, without the disadvantages of the latter drug.

Paraldehyde is a colorless fluid, boiling at  $124^{\circ}\text{C}$ .; sp. grav., at  $15^{\circ}\text{C}$ ., 0.998; it crystallizes when cooled, melting again at  $105^{\circ}\text{C}$ .; it is slightly soluble in water. The formula is  $\text{C}_6\text{H}_{12}\text{O}_3$ .

As a hypnotic its action is somewhat like chloral; yet in ordinary doses it does not depress the respiratory centres or the heart-action. Paraldehyde acts chiefly upon the cerebral hemispheres, but to a less extent upon the medulla and cord. In large doses it paralyzes the respiratory centres.

The exact dose is not laid down. In some cases one to four grammes were sufficient; in others, 10 grammes were given without disturbance. The drug is best given in syrup solutions containing three per cent. The taste is not unpleasant.—*Archiv f. exp. Path. u. Pharmacolog.*, October, 1882.

[Morselli and Bergesio, at the meeting of the Italian Medical Association, September, 1882, reported upon the use of paraldehyde among the insane. They found it a safe and efficient sedative and hypnotic in cases of mania, etc. The dose used was two to three grammes.]

THE HEADACHE OF ADOLESCENTS.—Charcot has given a clinical picture of the headache which attacks boys between the ages of eleven and sixteen. Aside from rest and general hygienic